



U.S. Environmental Protection Agency
Applicability Determination Index

Control Number: NS31

Category: NSPS
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Date: 12/04/1987
Title: Determination of Compliance - Owens - Illinois NSPS Digester
Recipient: Smith, Winston A.
Author: Seitz, John S.

Subparts: Part 60, BB, Kraft Pulp Mills

References: 111(b)
111(d)
111(j)
60.280

Abstract:

Are sources regulated under 111(d) allowed to bubble emissions with 111(b) NSPS sources? Is summation of allowable emissions from existing and NSPS-affected digesters rented through a common blow tank valid? The source also asked about compliance of uncontrolled emissions, and waivers for a Kraft pulp mill.

EPA stated that compliance bubbling cannot include sources not subject to NSPS; proration must be applied as to not take credit for emission reductions from existing units; compliance is to be determined from all emissions, not just those controlled; and waivers should not be used to bring sources into compliance.

Letter:

Control Number: NS31

December 4, 1987

MEMORANDUM

SUBJECT: Determination of Compliance for the
Owens-Illinois NSPS Digester No. 10

FROM: John S. Seitz, Director
SSCD
OAQPS

TO: Winston A. Smith, Director
Air, Pesticides, and Toxics Management Division

On October 15, 1987, you requested that the Emissions Standard and Engineering Division (ESED) provide comment on compliance options under consideration by Region IV for the Owens-Illinois (O-I) kraft pulp mill in Valdosta, GA. Given the compliance issues involved, the Stationary Source Compliance Division (SSCD) has agreed to provide the response with ESED's concurrence.

The O-I facility consists of nine existing digesters and one NSPS- affected digester (No. 10). Each digester has four emission points, three of which are uncontrolled and one of which (the turpentine condenser) is vented through the lime kiln. TRS emissions associated with the turpentine condenser are totally eliminated via incineration in the lime kiln. Total TRS emissions from the digesters are currently 0.147 lb/TADP. The NSPS limits emissions from digester No. 10 to 0.01 lb/TADP, however the Valdosta facility is currently subject to a 111(j) waiver which limits emissions from digester No. 10 to 0.02 lb/TADP. Prior to addition of the No. 10 digester, emissions from the turpentine condenser were not vented to the lime kiln, and total emissions were 0.989 lb/TADP.

Your October 15 memorandum raises several issues which are summarized below:

A. Are sources regulated under 111(d) allowed to bubble emissions with 111(b) NSPS sources?

B. 1. Is the 1982 SSCD (see Attachment A) and subsequent Region IV determination which allows summation of allowable emissions from existing and NSPS-affected digesters vented through a common blow tank valid?

2. Is it appropriate to apply the 1982 SSCD determination to the O- I kraft pulp mill?

C. Does incineration of the turpentine condenser exhaust constitute compliance for NSPS digester No. 10?

D. Which of the following four options under consideration by Region IV are viable compliance techniques:

1. control of TRS from all emission points (includes all ten digesters) to the level required by the NSPS;
2. control the fraction of emissions attributable to the NSPS digester from the three uncontrolled emission points to the level required by the NSPS;
3. shut down the NSPS-affected digester;
4. raise the emission limit in the 111(j) waiver so digester No. 10 is in compliance with the waiver, and extend the waiver until No. 10 meets the 0.01 lb/TADP required by the NSPS or until it is determined that add- on controls are necessary to meet the NSPS.

Our responses to these questions and comments are provided in the order presented above.

A. EPA will not consider applications for NSPS compliance bubbles for sources not subject to the NSPS promulgated under 111(b). The footnote you have cited from the CIPS NSPS bubble is not meant to imply that sources regulated under 111(d) would be allowed to bubble TRS emissions with NSPS Subpart BB affected facilities.

Furthermore, please note that such a bubble would also be disallowed under the December 4, 1986 Emission Trading Policy, to the extent that the NSPS affected facility is using credit from other facilities to meet the NSPS. The Emissions Trading Policy specifically prohibits the use of credits from existing sources to meet or avoid applicable NSPS (51 FR 43833).

B. The 1982 SSCD kraft pulp mill determination provided a means by which the compliance status of a NSPS affected digester could be determined where emissions from that digester are vented through the same unit (blow tank) as emissions from existing digesters. That proration technique is based on the actual or allowable emissions of the existing digesters prior to addition of the NSPS affected digester, and the allowable NSPS emissions. Use of this technique assumes that there is no change in the recorded allowable or actual emissions from the existing digesters before and after addition of the NSPS affected digester.

1. This is a viable technique for determining compliance since the NSPS defines the affected facility not as the digester in isolation, but as the digester system, which includes associated flash tanks, blow tanks, steamers, and condensers.
2. The proration technique has been misapplied to the O-I facility since there was a change in emissions from the existing digesters after the addition of digester No. 10. O-I uses actual emissions from the existing digesters prior to the venting of emissions to the lime kiln as follows:

$$(.989 \text{ lb/TADP})(.9) + (.01 \text{ lb/TADP})(.1) = 0.891 \text{ lb/TADP}.$$

This is inconsistent with the 1982 proration technique. The proration method presented in the 1982 memorandum could only be used at the O-I facility if they had data available on existing digester emissions after venting TRS emissions to the lime kiln. Assuming that all digesters are operated equally and have the same capacity, and assuming that emissions from the existing digesters are 0.147 lb/TADP after the change, the proration would be as follows:

$$(.147 \text{ lb/TADP})(.9) + (.01 \text{ lb/TADP})(.1) = 0.133 \text{ lb/TADP}.$$

The effect of the proration that O-I has presented (overall emission limit of 0.891 lb/TADP) is to take credit from emission reductions achieved at the existing units and apply it toward compliance with the NSPS -- neither the 1982 determination, the NSPS bubble policy, nor the Emissions Trading Policy allows this.

C. Incineration of the turpentine condenser exhaust alone does not constitute compliance for the No. 10 digester, since the TRS emissions from that digester's three other (uncontrolled) emissions points exceeds NSPS. (Note that the No. 10 digester is also out of compliance with the 111(j) waiver.)

D. Any of the first three options presented, #1-3, would achieve compliance with the NSPS. O-I need only reduce emissions to the level discussed in #2, however, the facility would also comply via #1 or 3.

SSCD and ESED have considered option #4, and agree that this is not an acceptable method for bringing digester No. 10 into compliance. Option #4 would require a relaxation of over seven times the current waiver and over 14 times the NSPS limit for an indeterminate time. Rather than relax the limits to bring this source into compliance, it would be more appropriate to subject the facility to the prescribed emission limits, and pursue the necessary means to achieve expeditious compliance.

If you have any questions regarding this response, please contact Sally M. Farrell at FTS 382-2875.

Attachment

cc: Brian Beals, Region IV
Mark Armentrout, Region IV
Jack Farmer, ESED
James Crowder, ESED
Jim Eddinger, ESED
Doug Bell, ESED